CLAIMS

What is claimed is:

1. A camera comprising:

an image device configured to receive light of a subject and to provide an image representation of the subject from the light, wherein the image representation is usable to generate a visible image of the subject;

a lens system optically coupled with the image device and configured to direct the light to the image device;

wherein the image device is configured to generate the image representation while having a first sensitivity to a first wavelength of light and a second sensitivity to a second wavelength of light different than the first sensitivity; and

a filter optically coupled with the lens system and corresponding to the image device wherein the filter is configured to pass a first quantity of photons having the first wavelength of light for the subject and a second quantity of photons having the second wavelength of light for the subject.

2. The camera of claim 1 wherein the image device comprises an electrical sensor configured to provide the image representation in the form of electrical data.

3. The camera of claim 2 wherein the electrical sensor comprises a plurality of pixels, and the electrical sensor is configured to provide the electrical data corresponding to a mosaic of different wavelengths for the pixels comprising the first and the second wavelengths.

4. The camera of claim 1 wherein the image device comprises film to provide the image representation.

5. The camera of claim 1 wherein the filter comprises a plurality of aperture stops of different sizes, wherein a first of the aperture stops is configured to pass light of the first wavelength and a second of the aperture

stops is configured to pass light of the second wavelength, wherein the first of the aperture stops has a radius greater than a radius of the second of the aperture stops.

6. The camera of claim 5 further comprising a third of the aperture stops having a radius smaller than a radius of the second of the aperture stops and comprising the only one of the plurality of the aperture stops configured to pass infrared light.

7. The camera of claim 1 wherein the light having the first wavelength comprises blue light and the light having the second wavelength comprises non-blue light.

8. A camera comprising:

an electrical sensor configured to receive light of a subject and to provide electrical data corresponding to the received light, wherein the electrical sensor comprises silicon having a first coefficient of absorption for light having a first wavelength and a second coefficient of absorption for light having a second wavelength, wherein the first coefficient of absorption is larger than the second coefficient of absorption and the first wavelength is smaller than the second wavelength; and

a filter optically coupled with the electrical sensor and configured to pass a first quantity of photons having the first wavelength of light for the given subject and a second quantity of photons having the second wavelength of light for the subject, wherein the second quantity of photons is less than the first quantity of photons.

9. The camera of claim 8 wherein the electrical sensor comprises semiconductive material having the first coefficient of absorption with respect to blue light.

10. The camera of claim 8 wherein the electrical sensor comprises a charge coupled device.

11. The camera of claim 8 wherein the filter comprises a plurality of aperture stops of different sizes, wherein a first of the aperture stops is configured to pass light of the first wavelength and a second of the aperture stops is configured to pass light of the second wavelength, wherein the first of the aperture stops is greater than the second of the aperture stops.

12. The camera of claim 11 wherein the aperture stops are concentric.

13. The camera of claim 12 further comprising a third of the aperture stops smaller than the second of the aperture stops and the only one of the plurality of the aperture stops configured to pass infrared light.

14. The camera of claim 8 wherein the electrical sensor comprises a plurality of pixels, and the electrical sensor is configured to provide the electrical data corresponding to a mosaic of different wavelengths for the pixels.

15. An optical system comprising:

lens means for receiving light having a plurality of wavelengths and for directing the light to an image means; and

filter means optically coupled with the lens means and comprising means for providing a first aperture stop having a first radius for blue light and a second aperture stop having a second radius different than the first radius for non-blue light, wherein the first radius of the first aperture stop is larger than the second radius of the second aperture stop.

16. The system of claim 15 further comprising the image means comprising means for receiving light of a subject from the lens means and for providing an image representation of the subject usable to generate a visible image of the subject.

17. The system of claim 15 wherein the image means comprises means for providing the image representation comprising electrical data for a plurality of pixel locations individually comprising image data for one of blue light and non-blue light.

18. The system of claim 15 wherein the first and the second aperture stops are configured to pass an increased number of photons of blue light compared with non-blue light.

19. The system of claim 15 wherein the first and the second aperture stops are concentric.

20. The system of claim 15 wherein the filter means further comprises a third aperture stop having a third radius smaller than the second radius and comprising the only one of the aperture stops for passing infrared light.

21. An imaging method comprising:

receiving light of a plurality of wavelengths;

first sensing the light having one of the wavelengths at a first sensitivity;

second sensing the light having an other of the wavelengths at a second sensitivity greater than the first sensitivity;

generating a plurality of electrical signals responsive to the first and the second sensings and corresponding to quantities of sensed light having the one and the other wavelengths; and

prior to the first and the second sensings, filtering the light comprising passing photons of the light having the one and the other wavelengths, the passing comprising passing an increased number of photons of the light having the one wavelength for a given subject compared with a number of the photons of the light having the other wavelength for the given subject.

22. The method of claim 21 wherein the first and the second sensings and the generating comprise using at least one sensing device comprising silicon.

23. The method of claim 21 wherein the first and the second sensings and the generating comprise using at least one sensing device comprising a charge coupled device.

24. The method of claim 21 wherein the one wavelength is smaller than the other wavelength.

25. The method of claim 21 wherein the sensing the light having one of the wavelengths comprises sensing blue light and the sensing the light the other of the wavelengths comprises sensing non-blue light.

26. The method of claim 21 wherein the filtering comprises filtering using a filter comprising a plurality of aperture stops of different sizes, wherein a first of the aperture stops is configured to pass light of the first wavelength and a second of the aperture stops is configured to pass light of the second wavelength.

27. The method of claim 26 wherein the aperture stops are concentric.

28. The method of claim 21 wherein the first sensing comprises sensing at a plurality of first pixels corresponding to the one wavelength and the second sensing comprises sensing at a plurality of second pixels corresponding to the other wavelength.

29. The method of claim 21 further comprising filtering infrared light providing a smaller number of photons for infrared light compared with light of the other wavelength for the given subject.

30. An optical filter configuration method comprising:

identifying a sensor for use with a filter, wherein the sensor is configured to generate electrical data responsive to received light of different wavelengths;

for the identified sensor, determining individual ones of a plurality of sensitivity relationships of the sensor with respect to different ones of the wavelengths of light;

responsive to the determining, configuring the filter to pass a first quantity of photons of a given subject for a first wavelength of light; and

responsive to the determining, configuring the filter to pass a second quantity of photons of the given subject for a second wavelength of light different than the first wavelength of light.

31. The method of claim 30 wherein the configurings comprise configuring the filter to pass an increased number of blue photons compared with respective numbers of individual colors of non-blue photons.

32. The method of claim 30 wherein the sensor comprises silicon having an increased coefficient of absorption of blue light compared with individual ones of red light and green light.

33. The method of claim 30 wherein the configurings comprise configuring the filter to pass an increased number of blue photons compared with green photons.

34. The method of claim 33 wherein the configurings comprise configuring the filter to pass an increased number of blue photons compared with red photons.

35. The method of claim 30 further comprising configuring the filter to pass a third quantity of infrared photons for the given subject less than individual ones of the first quantity and the second quantity.

36. The method of claim 30 wherein the determining comprises determining the sensor having an increased sensitivity to blue light compared with individual ones of red light and green light, and wherein the configurings

comprise configuring the filter to pass an increased quantity of blue photons compared with individual ones of red photons and green photons.

37. The method of claim 30 wherein the first wavelength is less the second wavelength and the first quantity is greater than the second quantity.

38. The method of claim 37 wherein the filtering comprises filtering using a filter comprising a plurality of aperture stops of different sizes, wherein a first of the aperture stops is configured to pass light of the first wavelength and a second of the aperture stops is configured to pass light of the second wavelength.

39. The method of claim 38 wherein the aperture stops are concentric.